

Notice of Allowability

Application No.

10/042,294

Examiner

Russ Guill

Applicant(s)

BEN-DAVID, SHOHAM

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment filed April 5, 2006.
2. ☒ The allowed claim(s) is/are 1-51.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

1. This Office Action is in response to an Amendment filed April 5, 2006. Claims 1 - 51 are pending. Claims 1 - 51 have been examined. Claims 1 - 51 have been allowed.

Allowable Subject Matter

2. Claims 1 - 51 are allowed over the prior art of record.

3. The following is an examiner's statement of reasons for allowance:

a. While Beer teaches a method for checking a model, which defines states of a hardware system under study, and a transition relation among the states, and, beginning from an initial set of states, computing successive reachable sets comprising the states of a hardware system that are reachable from an initial set, and, determining whether an intersection exists between one of the reachable sets and a target set, and, when an intersection is found to exist, producing a trace between an initial state and the termination state, and Bruegge teaches providing a specification of a path to be found through the states of a software system, such that a specified sequence of events is to occur on the path between an initial state and a target state, and Ball teaches a software system producing a partial trace along a path between an initial state and a termination state, none of these references taken either alone or in combination with the prior art of record disclose a method for checking a model specifically including:

i. Regarding **claim 1**, "providing a specification of a path to be found through the states of the hardware system under study from an initial set that comprises at least one initial state among the states of the hardware system to a target set that comprises at least one target state among the

states of the hardware system, such that a specified sequence of events is to occur on the path between the at least one initial state and the at least one target state," and "such that in successive reachable sets the events occur in the specified sequence," and "when the intersection is not found to exist, producing a partial trace along the path between the at least one initial state and a termination state in which at least one of the specified events occurs," in combination with the remaining features and elements of the claimed invention.

ii. Regarding **claim 18**, "receive a specification of a path to be found through the states of the hardware system under study from an initial set that comprises at least one initial state among the states of the hardware system to a target set that comprises at least one target state among the states of the hardware system, such that a specified sequence of events is to occur on the path between the at least one initial state and the at least one target state," and "such that in successive reachable sets the events occur in the specified sequence," and "when the intersection is not found to exist, to produce a partial trace along the path between the at least one initial state and a termination state in which at least one of the specified events occurs," in combination with the remaining features and elements of the claimed invention.

iii. Regarding **claim 35**, "receive a specification of a path to be found through the states of the hardware system under study from an initial set that comprises at least one initial state among the states of the hardware system to a target set that comprises at least one target state among the states of the hardware system, such that a specified sequence of events is

to occur on the path between the at least one initial state and the at least one target state," and "such that in successive reachable sets the events occur in the specified sequence," and "when the intersection is not found to exist, to produce a partial trace along the path between the at least one initial state and a termination state in which at least one of the specified events occurs," in combination with the remaining features and elements of the claimed invention.

b. It is for these reasons that the Applicants' invention defines over the prior art of record.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell L. Guill whose telephone number is 571-272-7955. The examiner can normally be reached on Monday – Friday 9:30 AM – 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application should be directed to the TC2100 Group Receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RG

Russ Guill
Examiner
Art Unit 2123


Paul D. Rodriguez 5/23/02
Primary Examiner
Art Unit 2425 2023